

# Demonstration/Integration Breakout Session

Grid Technologies Collaborative  
Conference

10 June 2013

# Breakout session overview

- External participants included representatives from NRECA, KeyLogic, UTRC, PJM, GridTech, DOE (Pat Hoffman spent considerable time in our session).
- Morning breakout: 1 hour spent on the Navy Yard site (there was a LOT of Q&A on the site's capabilities), 1 hour spent on the role of demonstration in the product life cycle.
- Afternoon breakout: Most of the time spent discussing what outcomes industry would like to see from any demonstration and what the potential unique contributions of GTC would be.

# Breakout session discussion topics

1. At what point in technology development do we need to move from the stand to the demonstration platform?
2. What would industry want to see “demonstrated” and at what scale?
3. What other programs are doing work potentially similar to GTC?
4. What can GTC uniquely contribute?

# Q1: When should demonstrations happen?

- Demonstration needs to happen at a point where the outcome is perceived to reduce risk to industry.
- Product differentiation needs to be demonstrated.
- Technical feasibility needs to be accompanied by a targeted cost.
- If new technology cannot beat the old on cost, then demonstration needs to show substantial value on some other performance dimension. (We came back to this a lot in the afternoon).

## Q2: What should be demonstrated?

Discussion on what attributes we might want to be able to show (through demonstration or other means) for new converter technology:

- Reliability
- Size
- Seamless transition from grid-connected to islanding mode
- Environmentally sound design – minimize use of certain materials (like rare earths, heavy oils)
- Cost demonstration on a life-cycle basis, not just first cost. (But lower first cost is always nice to see!)
- Ability of the unit to communicate health to the system operator
- Fine-grained locational measurement
- Demonstrable system-level benefit – otherwise how will state commissions get on board to permit cost recovery? Used and useful standard in utility regulation may be key
- Interoperability/backwards compatibility
- Modular and customizable.

## Q2: Who might be involved?

The group discussed possibilities for demonstration aside from the Navy Yard setting.

- Who might early adopters be?
- Group consensus was that IOUs and industry are not the right setting – IOUs may have challenges in getting cost recovery and industry has already found workaround solutions.
- DOD has potential, or public power (co-ops and muni's)

## Q3: Who is involved in similar work?

- DOD Spiders program
- NREL
- EPRI?

## Q4: What can GTC bring that is unique?

- A realistic demonstration that passes the industry laugh test would be immensely valuable – in our group it was identified as perhaps the greatest potential contribution of the GTC.
- GTC could also be valuable as a means for sharing information between the wide variety of groups represented at the conference.